

REMARKS

Favorable reconsideration of this application as presently amended is respectfully requested.

Claim 1 having been cancelled, the claims presently active in this application include claims 2-9, 11 and new claim 13. Claims 2-9 and 11 all depend, directly or indirectly, from new claim 13. Claim 1, now cancelled and replaced by new claim 13, along with claims 2-5, 9 and 11 stand rejected under U.S.C. 103(a) as unpatentable over Stoeckl (US. 5,300,926) in view of Rowe (U.S. 2003/0048259). Claim 6 stands rejected under 35 U.S.C. 103(a) as unpatentable over Stoeckl in view of Rowe, and further in view of Fricker et al. (U.S. 2001/0013855). Claim 8 stands rejected under 35 U.S.C. 103(a) as unpatentable over Stoeckl in view of Rowe, and further in view of Lordo (U.S. 5,558,371).

The Examiner has objected to claim 7 as depending from a rejected claim but has indicated it would be allowable if rewritten in independent form.

Applicant thanks the Examiner for the courtesies extended during a telephone interview on September 20, 2010. In the interview the undersigned summarized the invention of the application and pointed out that with respect to the rejection of claim 1, it would not have been obvious to modify the construction of Stoeckl in view of Rowe as suggested by the Examiner and that even if Stoeckl were so modified, the modified construction still would not constitute the present invention. It was agreed that applicant would amend the claims to even more clearly differentiate the invention from the teachings of the cited prior art.

As noted above, claim 1 has been cancelled and replaced by new claim 13. Claim 13 expressly recites that the manner in which a control function of the dental device is selected is by moving a cursor on a graphic display in relation to symbols (that identify respective control

functions), by movement of pointer means (e.g., a pointer pen or a finger) on the contact surface of a touch pad, and that the control function is then activated by pressing the contact surface of the touch pad by the pointer means. In particular, claim 13 recites "... said touch pad ... structured and arranged *for selecting* a respective control function ... *by moving said cursor* in relation to said symbols by movement of the pointer means on said contact surface of said touch pad *and for then activating* said selected control function ... *by pressing of said contact surface* of said touch pad by the pointer means ...". No new matter is added by this claim language. For example, see the specification at page 5, lines 1-8.

Furthermore, claim 13 recites that the graphic display and the touch pad are structured and arranged separately from each other such that the graphic display and touch pad can be situated relative to the dental device independently of each other. No new matter is added by this claim language. For example, see the specification at page 3, lines 17-21.

On the other hand, in Stoeckl, control functions of the apparatus are actuated by an actuating device, which is disclosed to be a foot switch. Stoeckl further discloses keys on a touch screen keyboard which forms part of a visual or graphic display, "a visual field." Stoeckl discloses more than one embodiment of this visual field including one in which a particular LED, or in the case where Stoeckl uses a "digital visual display," a blinking light, is arranged to indicate the status of the selection and the status of an actuation device. (It is noteworthy that Stoeckl discloses no device other than the foot switch to "actuate" the control functions. The touch screen keyboard is not discussed in the context of actuating functions.) Thus, the manner in which a control function is selected in Stoeckl, i.e., via a touch screen keyboard, is manifestly different from the manner in which a control function is selected and activated in accordance with the invention, i.e., by moving a pointer over the surface of a touch pad to move a cursor on a graphic

display in relation to function-identifying symbols, and then pressing the contact surface of the touch pad (instead of using the foot switch) to activate the control function. Both the LEDs as well as the blinking light spots of Stoeckl (which are referred to in Stoeckl as a picture screen cursor (col. 7, lines 62-63)), are in the nature of “status indicators,” i.e., merely confirm to a user what operation has been selected. They are not cursors as commonly understood (“cursor: a movable, sometimes blinking, symbol that indicates the position on a CRT or other type of display where the next character entered from the keyboard will appear, or where user action is needed, as in the correction of an erroneous character already displayed).” (*Dictionary.com Unabridged*. Retrieved October 12, 2010 from Dictionary.com website: <http://dictionary.reference.com/browse/cursor>). As defined in claim 13, after the cursor has been moved in relation to function-identifying symbols (by movement of a pointer on the touch pad contact surface) in order to select a control function, further user action, i.e., pressing of the touch pad contact surface, is required to activate the selected function. Further, no means is disclosed to move any cursor to any desired location on the display like one is able to do in the currently claimed invention, by moving on the contact surface – the LED’s etc. in Stoeckl are always located at predefined fixed positions.

Any reconstruction of the Stoeckl apparatus to include the features of the invention as defined in new claim 13 would not have been obvious to a person skilled in the art. First, such a reconstruction would require completely dropping the core idea behind the Stoeckl apparatus: a single foot switch actuator to be used to actuate any operation there may be in the apparatus.

Stoeckl discloses:

“Previously, a multitude of functions could only be selected (if they could be selected at all), by a multitude of actuation devices, arranged at different locations of a dental apparatus. With the exception of a few functions that were capable of being selected with foot switches, the selection of the most functions was usually accomplished manually.” (Col. 2, lines 6-12)

“It is an object of the present invention to specify a medical apparatus, such as a dental apparatus, that allows the user to be able to select a plurality of different operating parameters of a number of different units of the apparatus such as set forth hereinabove in a relatively simple, sanitary and surveyable manner, without having to execute a plurality of different operating or actuating events.” (Col. 2, lines 59-66) (emphasis added);

“One important advantage of the apparatus of the present invention is that all functions are selectable with only one actuation device, preferably a foot switch.” (Col. 3, lines 1-3) (emphasis added);

“Thus, the user need use only a single operating element, or actuation device, resulting in a simple actuation of various elements of an apparatus.” (Col. 3, lines 15-18) (emphasis added);

“A second important component of the apparatus of the present invention is the visual field. The functions that can be triggered [i.e. BY THE FOOT SWITCH – again, Stoeckl discloses no device other than the foot switch to “actuate” control functions] are visually displayed on the visual field for viewing by the operator of the apparatus of the present invention. In addition, a momentary selection position can be displayed.” (Col. 3, lines 47-52).

Thus, the very idea of trying to modify Stoeckl to include the features of the claimed invention would be in contradiction with everything Stoeckl teaches, something that is neither taught nor suggested by Stoeckl or in any of the prior art references. No motivation for such a reconstruction is found in the prior art. The proposed modification would constitute at most a hindsight reconstruction of the prior art, made solely in the light of applicant’s disclosure.

Second, the advantages that flow from the use of a touch pad-cursor function selection and activation system are neither taught nor suggested by the prior art. For example, in the case where a touch screen keyboard is used to select something, the keyboard must be situated where the user can see it in order to enter commands. This is not a requirement in the case of a touch

pad interface where it is only necessary that the user can reach it but where it is not necessary for the user to see it. Another important advantage is that even though a contact surface of a touch pad is easy to clean and disinfect between dental treatments or even during a treatment, the need for doing that is not that frequent as when having a touch screen, regarding which being able to see the display is an issue yet a touch screen quickly gets dirty upon use when fingered by dentist's wet and often bloody fingers.

Even if the Stoeckl arrangement were modified to include the touch pad arrangement shown in Rowe, the invention defined by new claim 13 still would not be obtained. First, claim 13 requires that the graphic display and the touch pad can be situated relative to the dental device "independently of each other." This feature is advantageous since it allows the touch pad to be arranged at any location deemed appropriate by the user without regard to the position of the graphic display. For example, the touch pad can be situated under a backrest of a patient's chair (see claim 9) or even under the headrest of the chair proximate to the patient's mouth to enable the user to select and activate new functions without his/her hands leaving the area of the patient's mouth. In a similar manner this feature enables the graphic display to be located at any appropriate location regardless of whether it is within the reach of the user. In Stoeckl, the visual display must be within the user's reach to enable the user to reach and operate the touch screen keyboard. Rowe discloses an arrangement in Fig. 1 in which the touch pad 20 is coupled to the visual display screen 10 in a manner such that the graphic display and touch pad cannot be situated independently of each other.

Further, the touch pad 20 of Rowe does not operate in accordance with the arrangement recited in claim 13. As discussed above, claim 13 specifies that the touch pad is situated and arranged, *inter alia*, for "activating said selected control function of said dental device by

pressing of said contact surface of the touch pad by the pointer means.” This is neither taught nor suggested in Rowe. Rather, the Rowe construction is provided, in addition to the touch pad, with left and right control buttons 21, 22 which are analogous to right and left click buttons of a mouse. Thus, after the touch pad 20 is used to position a cursor in Rowe, the user would have to press a control button 21, 22 to take further action, e.g., to activate a particular function. This is in contrast to the present invention in which the control function is activated by pressing on the contact surface of the touch pad itself.

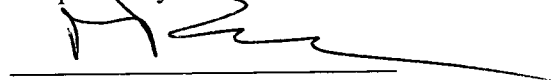
For the Examiner’s interest, the European Patent Office, after considering the teachings of Stoeckl, granted corresponding European Patent EP 16058554 B1. See <http://v3.espacenet.com/publicationDetails/originalDocument?FT=D&date=20100901&DB=EP&DOC=16058554B1&KC=B1>.

In view of the foregoing, it is respectfully submitted that claim 13 patentably defines over the teachings of Stoeckl and Rowe, taken either alone or in combination, and should be allowed.

All of the remaining claims depend either directly or indirectly from claim 13 and, as such, include the various limitations thereof. Accordingly, for the reasons advanced in connection with claim 13, claims 2-9 and 11 should also stand allowable.

It is respectfully submitted that this application is presently in condition for allowance and early passage to issue is respectfully solicited.

Respectfully submitted



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